VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM
SECTION C: LAND APPLICATION OF BULK BIOSOLIDS

LAND APPLICATION AGREEMENT - BIOSOLIDS

A. This land application agreement is made on 5/15/19 between Douglas Cullip, referred to here as "Landowner", and Town of Christiansburg, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Pulaski County, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
027-1-41			

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:
- ☐ The Landowner is the sole owner of the properties identified herein.
- ✓ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply biosolids on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of biosolids for the purpose of determining compliance with regulatory requirements applicable to such application.

Douglas Cullip — Douglas Cullip
Landowner – Printed Name, Title — Signature

P.O. Box 433, Dublin, VA 24084
Mailing Address

Permittee:

Town of Christiansburg, the Permittee, agrees to apply biosolids on the Landowner's land in the manner authorized by the VPDES Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the documents assigning signatory authority to the person signing for landowner above. I will make a copy of this document available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Randy Wingfield, Town Manager — 100 E. Main St., Christiansburg, VA 24073
Permittee – Authorized Representative Printed Name — Signature — Mailing Address

LAND APPLICATION AGREEMENT - BIOSOLIDS

Permittee: Town of Christiansburg **County or City:** Christiansburg, VA

Landowner: Douglas Cullip

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
    a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
    b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
    c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
    a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
    b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
    c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
    d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
    e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:
    Following biosolids application to pasture or hayland sites;
    a. Meat producing livestock shall not be grazed for 30 days.
    b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
    c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Douglas Cullip 5-11-19

Landowner's Signature Date

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM
SECTION C: LAND APPLICATION OF BULK BIOSOLIDS

LAND APPLICATION AGREEMENT - BIOSOLIDS

A. This land application agreement is made on 5/15/19 between Emogene Cullip, referred to here as "Landowner", and Town of Christiansburg, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Pulaski County, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
027-1-41			

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:
- ☐ The Landowner is the sole owner of the properties identified herein.
- ✓ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply biosolids on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of biosolids for the purpose of determining compliance with regulatory requirements applicable to such application.

Emogene Cullip — Emogene Cullip
Landowner – Printed Name, Title — Signature

P.O. Box 433, Dublin, VA 24084
Mailing Address

Permittee:

Town of Christiansburg, the Permittee, agrees to apply biosolids on the Landowner's land in the manner authorized by the VPDES Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the documents assigning signatory authority to the person signing for landowner above. I will make a copy of this document available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Randy Wingfield, Town Manager — [signature] — 100 E. Main St., Christiansburg, VA 24073
Permittee – Authorized Representative Printed Name — Signature — Mailing Address

LAND APPLICATION AGREEMENT - BIOSOLIDS

Permittee: Town of Christiansburg **County or City:** Christiansburg, VA

Landowner: Emogene Cullip

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
   a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
   b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
   c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
   a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
   b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
   c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
   d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
   e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:
   Following biosolids application to pasture or hayland sites:
   a. Meat producing livestock shall not be grazed for 30 days,
   b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
   c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Emogene Cullip — 5/12/2014

Landowner's Signature — Date

LAND APPLICATION AGREEMENT - BIOSOLIDS

Landowner Coordination Form

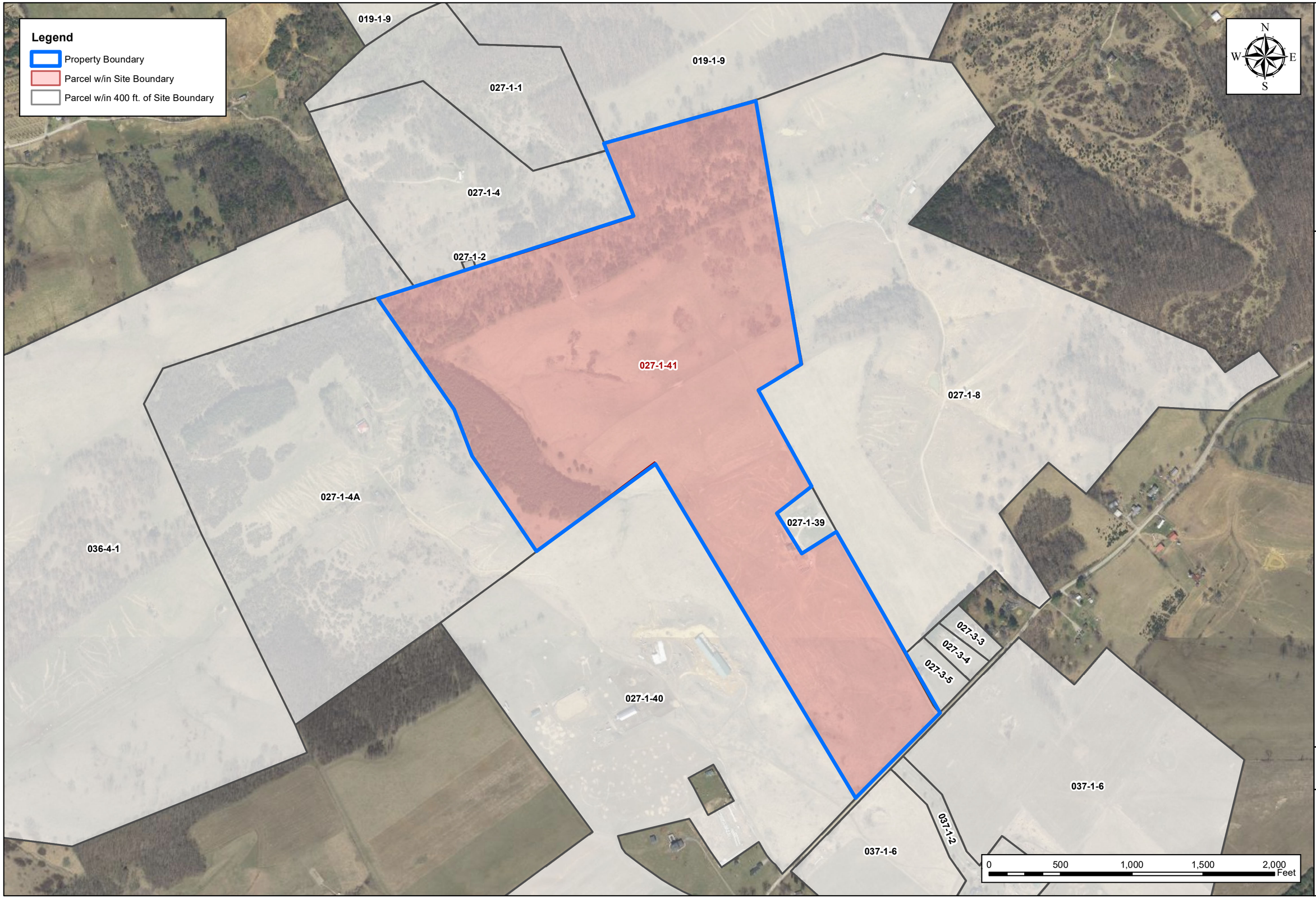
This form is used by the Permittee to identify properties (tax parcels) that are authorized to receive biosolids and each of the legal landowners of those tax parcels. A *Land Application Agreement – Biosolids* form, pages 1 and 2 with original signature must be attached for each legal landowner identified below prior to land application at the identified parcels.

Permittee: **Town of Christiansburg**

County or City: **Christiansburg, VA**

Please Print (Signatures not required on this page)

Tax Parcel ID(s)	Landowner(s)
027-1-41	Douglas Cullip and Emogene Cullip



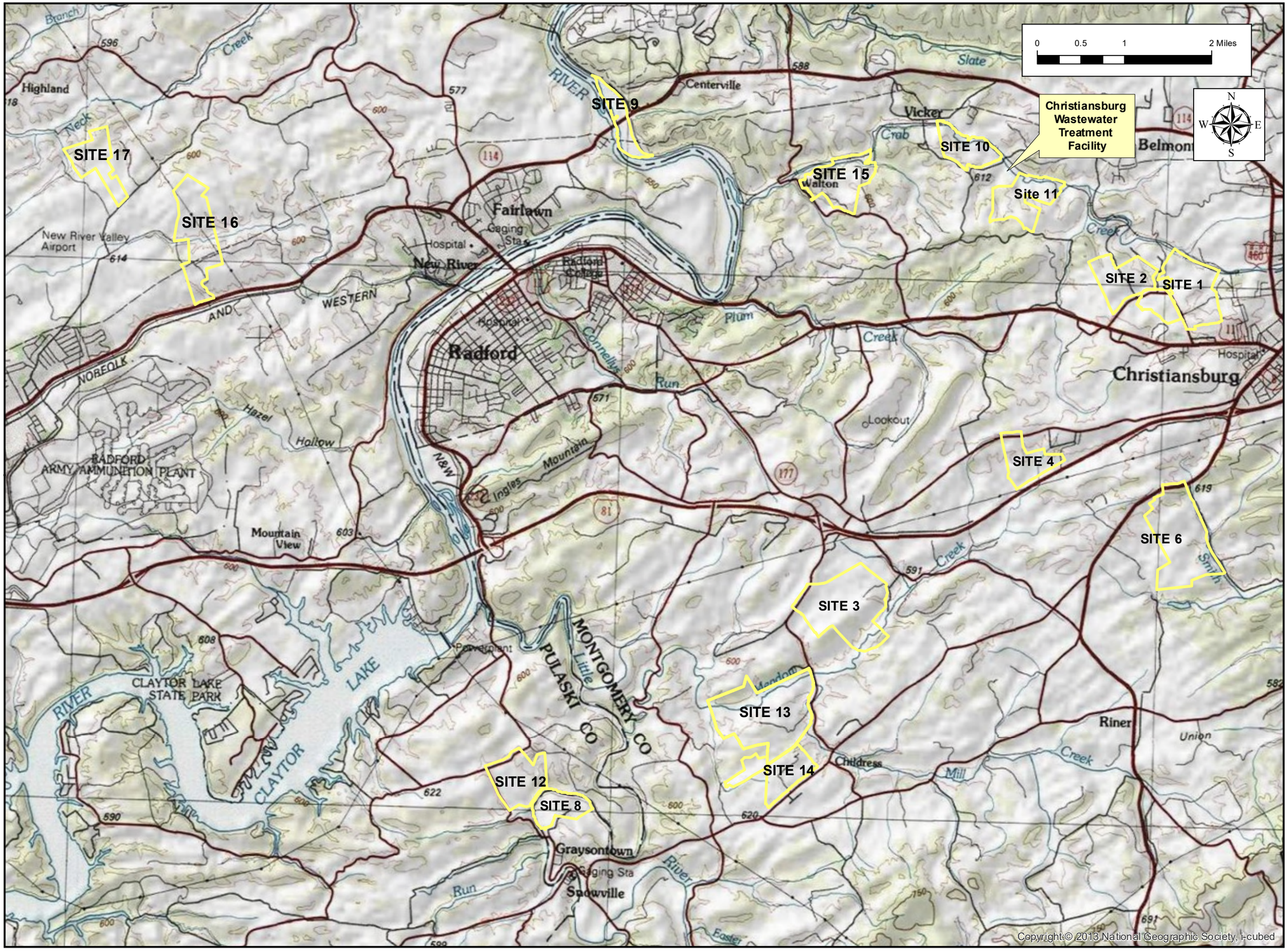
CHA

Site 17 - Biosolids Land Application

TOWN OF CHRISTIANSBURG WWTF BIOSOLIDS MANAGEMENT PLAN

Job No: 33201
June 2021

Sheet
1 of 1



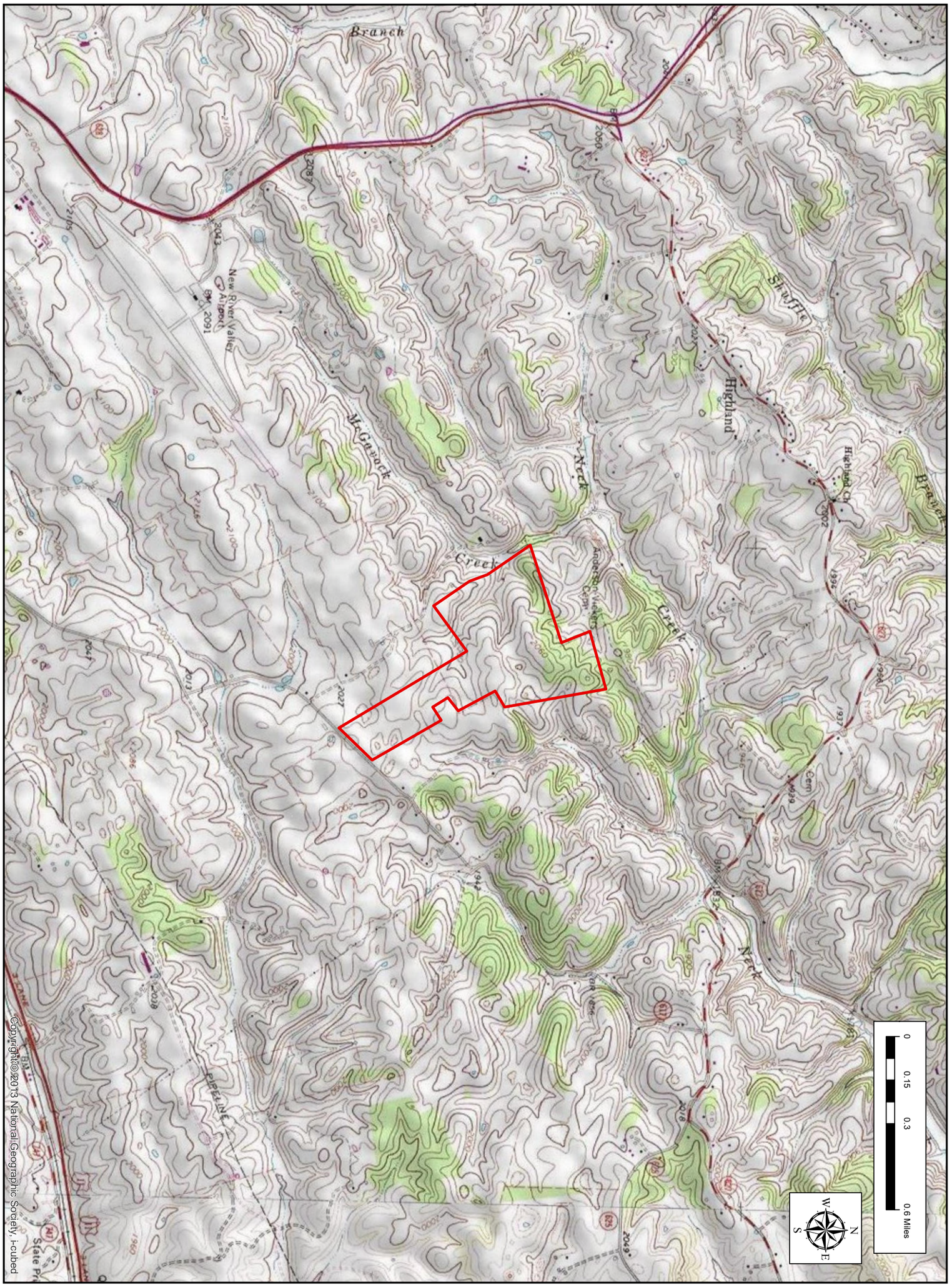
CHA
1341 Research Center Drive, Suite 2100 • Blacksburg, VA 24060
Main: (540) 552-5548 • www.chacompanies.com

TOWN OF CHRISTIANSBURG WASTEWATER TREATMENT FACILITY
BIOSOLIDS MANAGEMENT PLAN

GENERAL LOCATIONS MAP

Job No: 33201
JUNE 2019

Sheet 1 of 1



Sheet 1 of 1

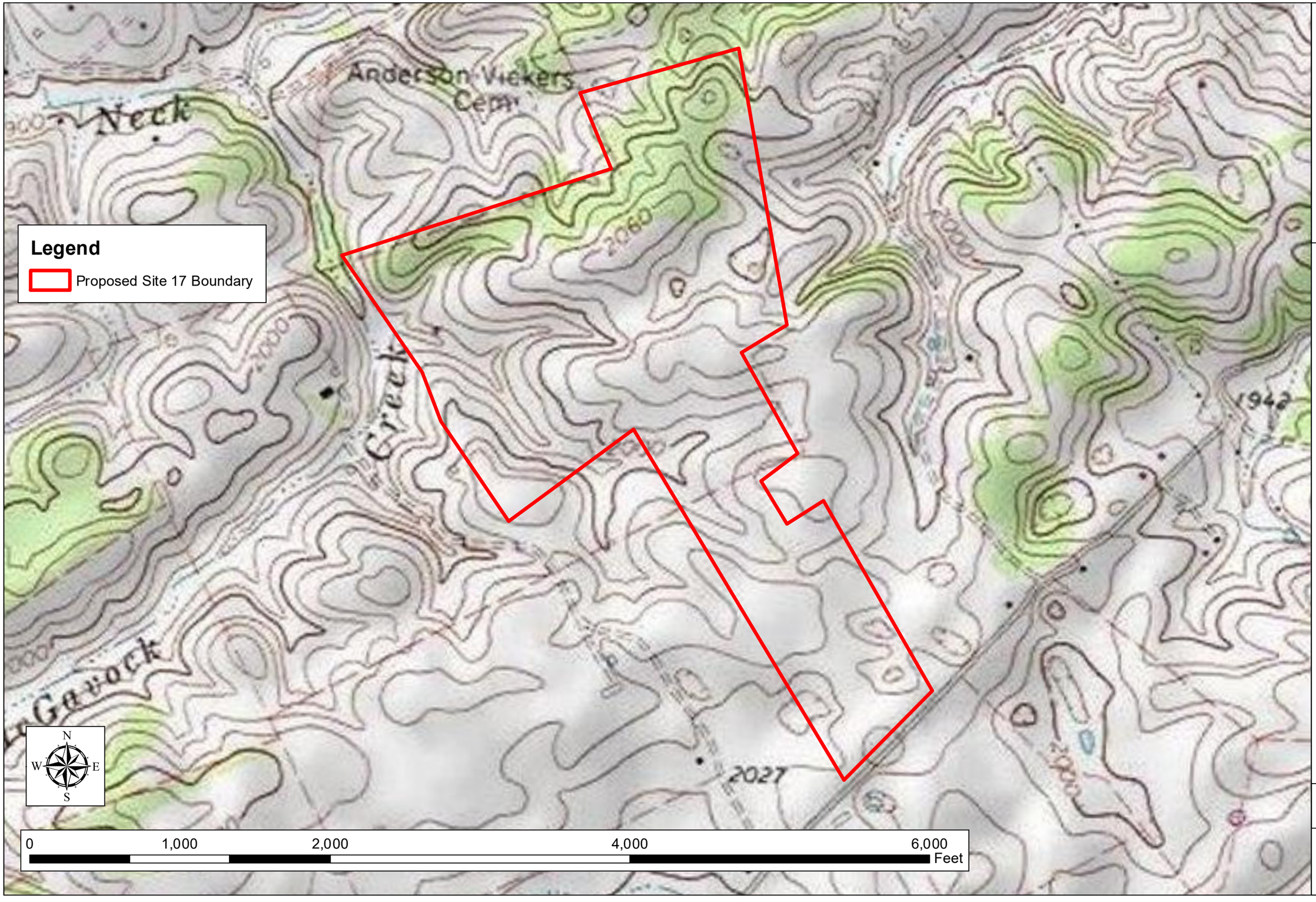
Job No: 33201
JUNE 2019

TOWN OF CHRISTIANSBURG WASTEWATER TREATMENT FACILITY
BIOSOLIDS MANAGEMENT PLAN

GENERAL LOCATION MAP - SITE 17

CHA

1341 Research Center Drive, Suite 2100 •
Blacksburg, VA 24060
Main: (540) 552-5548 • www.chacompanies.com



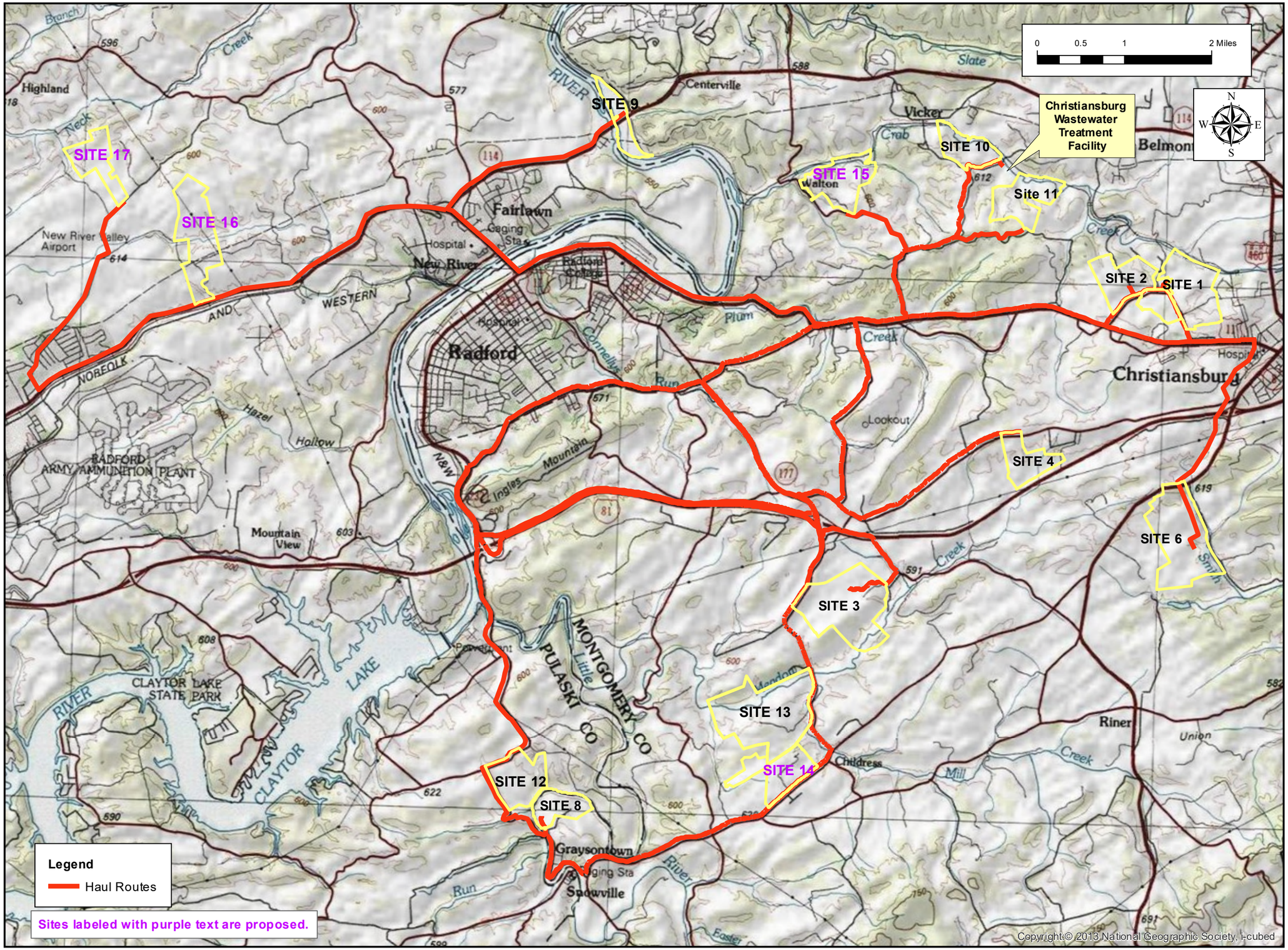
CHA
1341 Research Center Drive, Suite 2100 - Blacksburg, VA 24060
Main: (540) 552-5548 - www.chacompanies.com

POTENTIAL NEW SITE - CULLIP SITE 17

BIOSOLIDS MANAGEMENT PLAN

Job No: 33201
JUNE 19

Sheet
1 of 1



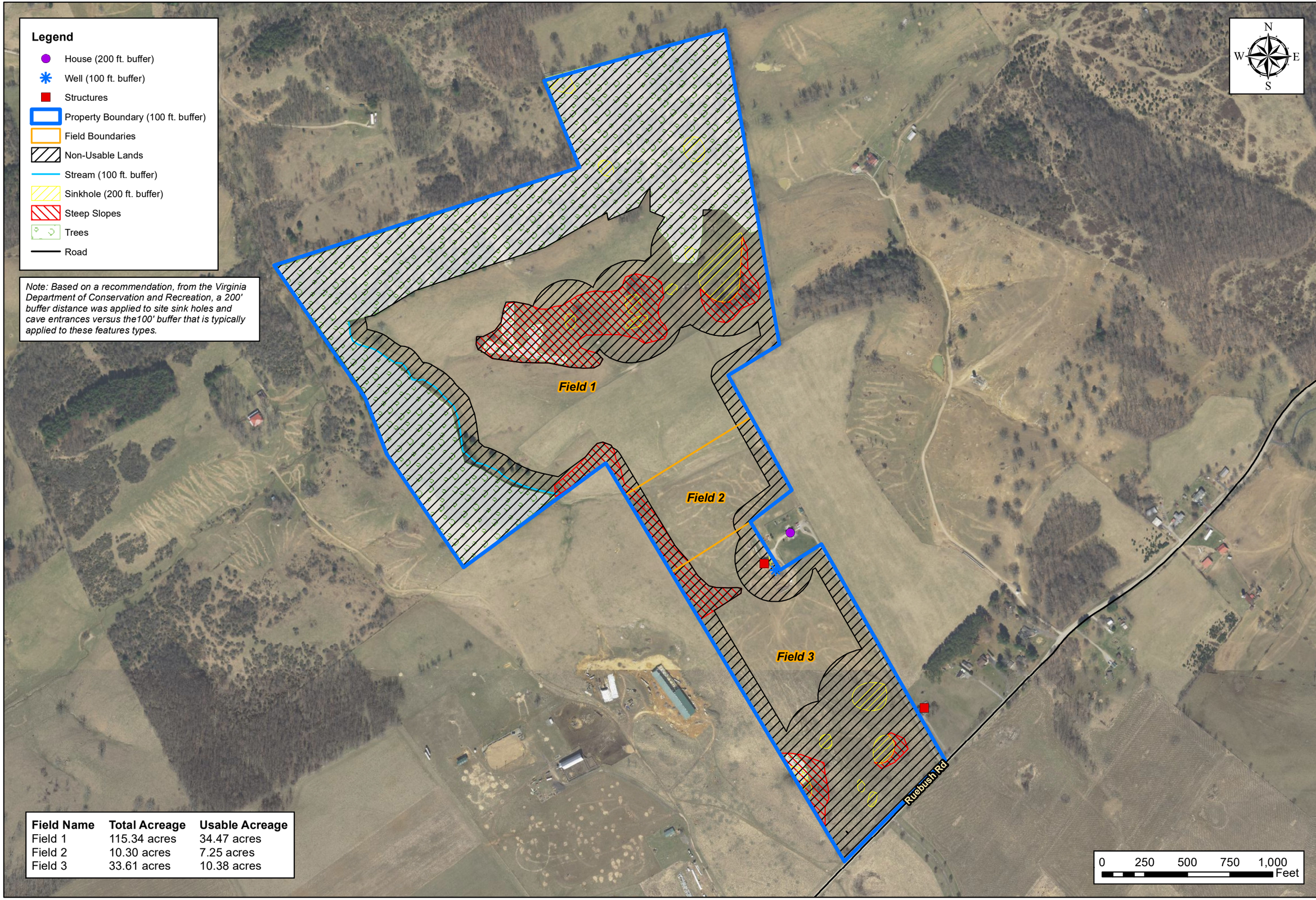
CHA
1341 Research Center Drive, Suite 2100 • Blacksburg, VA 24060
Main: (540) 552-5548 • www.chacompanies.com

TOWN OF CHRISTIANSBURG WASTEWATER TREATMENT FACILITY BIOSOLIDS MANAGEMENT PLAN

SITE LOCATIONS MAP

Job No: 33201
JUNE 2019

Figure 1



CHA

Site 17 - Biosolids Land Application

TOWN OF CHRISTIANSBURG WWTF BIOSOLIDS MANAGEMENT PLAN

Job No: 33201
August 2021

Sheet
1 of 1

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Pulaski County, Virginia
Survey Area Data: Version 13, Aug 28, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 22, 2012—Feb 5, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
4D	Carbo silty clay loam, 15 to 35 percent slopes	3.1	2.0%
5C	Carbo silty clay loam, very rocky, 7 to 15 percent slopes	12.3	7.7%
5D	Carbo silty clay loam, very rocky, 15 to 30 percent slopes	25.8	16.2%
6E	Carbo-Rock outcrop complex, 10 to 45 percent slopes	10.8	6.8%
13C	Groseclose and Poplimento silt loams, 7 to 15 percent slopes	13.5	8.5%
20B	Lowell silt loam, 2 to 7 percent slopes	17.2	10.8%
20C	Lowell silt loam, 7 to 15 percent slopes	16.2	10.2%
20D	Lowell silt loam, 15 to 30 percent slopes	7.0	4.4%
35C	Wurno-Newbern-Faywood silt loams, 7 to 15 percent slopes	24.8	15.6%
35D	Wurno-Newbern-Faywood silt loams, 15 to 30 percent slopes	28.5	17.9%
Totals for Area of Interest		**159.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a